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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	**Application No.** 10/682,315	**Applicant(s)** LIU ET AL.
	Examiner Andy S. Rao	**Art Unit** 2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 May 2007*.
2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-24* is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-24* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a)☐ All b)☐ Some * c)☐ None of:
 1.☐ Certified copies of the priority documents have been received.
 2.☐ Certified copies of the priority documents have been received in Application No. _____.
 3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
 * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

1. Applicants' arguments filed with respect to amended claims 1-24 as filed on 5/7/07 have been fully considered but they are not persuasive.

2. The Applicants present five arguments contending the Examiner's pending rejection of originally presented claims 1-24 under 35 U.S.C. 103(a) as being unpatentable over Pan et al., (hereinafter referred to as "Pan") in view of Qi et al., (hereinafter referred to as "Qi"), said rejection being set forth in the Office Action of 2/15/07, said arguments being presented in support of currently amended claims 1-24. However, after a careful consideration of the arguments presented, and further scrutiny of the applied references, the Examiner must respectfully disagree for the reasons that follow and maintain the applicability of the references as the basis for the grounds of rejection against claims 1-24.

After summarizing the salient features of the instant invention (Amendment of 5/7/07: page 14, lines 1-10), the Applicants argue that Pan fails to actually detect fades, since it only appears to be concerned with logo transitions (Amendment of 5/7/07: page 14, lines 10-19; page 15, lines 1-2). The Examiner respectfully disagrees. Since, Pan discloses that logo placement is typically associated with fade based transitions (Pan: paragraph [0040], lines 1-6), and that Pan is directed towards detecting logo transitions (Pan: paragraph [0041], lines 1-6), the Examiner asserts that the detection of fades as the correlate to logo placement is an intermediate step to the final step of isolating a logo in the video stream, but it does read upon "detecting a fade" as in the claim. The Examiner further notes that since Pan is also concerned with formulating a logo template after the detected logo transition (Pan: paragraph [0041], lines 7-15), the detection of a present fade would clearly be one the characteristics assimilated into the formulation of such a template (Pan: paragraph [0042], lines 1-13). Accordingly, the Examiner maintains that the limitation is met.

Secondly, the Applicants argue that Pan fails to meet the limitation of a "stochastic measure..." as in the claims (Amendment of 5/7/07: page 15, lines 3-14). The Examiner strongly disagrees. This nature of this argument is so egregiously incorrect that the Examiner wonders if Applicant understands the true nature of definition of "stochastic" in the way that it is broadly claimed here. Webster's II New Riverside University Dictionary (page 1141, submitted herewith) defines the stochastic as the following:

1). Of, denoting, or marked by conjecture: conjectural.

2). (a): Involving or containing a random variable.

2). (b): Involving probability or chance.

The Examiner has pointed out (and Applicant has readily acknowledged) that Pan relies upon probability densities for logo transition identification and characterization (Pan: paragraph [0081], lines 1-7), and as such, the Examiner would maintain that this term is met.

Additionally, the Applicants argue that Pan fails to disclose "...a noise level..." and a "...threshold..." as in the claims (Amendment of 5/7/07: page 15, lines 15-18; page 16, lines 1-2). The Examiner respectfully disagrees. It is noted that Pan discloses having the summarization procedure for logo transition detection (Pan: paragraph [0040], lines 1-8) for template construction more robust (i.e. accounts for noise of a given level against a threshold) over past efforts (Pan: paragraph [0036], lines 5-30), and this is more explicitly detailed in Pan's disclosure of accounting for a given noise versus a relaxed criterion (i.e. threshold) in making a final decision on a logo template (Pan: paragraph [0075], lines 1-11; paragraph [0076], lines 1-7). Accordingly, the Examiner maintains that the limitation is met.

In response to Applicants' argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning (Amendment of 5/7/07: page 16, lines 3-16, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).*

Lastly, in response to Applicants' arguments against the references individually (Amendment of 5/7/07: page 17, lines 1-20; page 18, lines 1-5), one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); In re Merck & Co., 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).* In particular, since the Examiner has show that Pan already addresses the "noise" limitation, Qi on it's own doesn't also have to address it, but meets the feature with its combination with Pan.

A detailed rejection follows below.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

4. Claim 14 is rejected under 35 U.S.C. 102(e) as being anticipated by Pan et al., (hereinafter referred to as "Pan").

Pan discloses a fade detection system for detecting fade in a logo in a sequence of frames comprising pixels that represent digital video images (Pan: figure 27), comprising: a detector for detecting the logo in one of the video frames (Pan: paragraph [0036], lines 17-25); a logo map generator generating a map including a pixel pattern corresponding to the video frame (Pan: paragraph [0077], lines 1-8), wherein each pixel in the pattern indicates whether the corresponding pixel in the video frame is in the logo (Pan: paragraph [0075], lines 1-8); a logo tracker that detects logo fade by: using the map to select pixels of the video frame that are in the logo to (Pan: paragraph [0071], lines 1-11) determine the difference between the value of the current pixel and that of a corresponding pixel in a reference frame (Pan: paragraph [0081], lines 1-5), subtracting a given noise (Pan: paragraph [0075], lines 1-15) mean (Pan: paragraph [0065], lines 1-5) from the said difference and squaring the obtained value (Pan: paragraph [0076], lines 1-7), and generating a sum of the squared differences with noise mean subtracted for each of a plurality of pixels within the logo area [0078], lines 1-5); generating an average of the sums (Pan: paragraph [0067], lines 1-8), and comparing said average with a given noise level (Pan: paragraph [0073], lines , such that if t-he a difference between the said average and the noise level is greater than the threshold value (Pan: paragraph [0075], lines 6-11) then a fade is detected (Pan: paragraph [0040], lines 1-6), as in claim 14.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1-13, and 15-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pan et al., (hereinafter referred to as "Pan") in view of Qi et al., (hereinafter referred to as "Qi").

Pan discloses a method of detecting fade in an area of each of a sequence of frames comprising pixels that represent digital video images (Pan: figures 4-5), comprising the steps of:

calculating a stochastic measure σ_d of said area based on the differences in pixel values in at least two of said frames (Pan: paragraphs [0078]-[0082], all); and detecting fade in said area by comparing the stochastic measure with a given noise level (Pan: paragraph [0036], lines 20-30), such that if a difference between σ_d and given noise level is greater than a threshold (Pan: paragraph [0075, lines 1-11; paragraph [0076], lines 1-7) value then fade is detected (Pan: paragraph [0040], lines 1-8), as in claim 1. However, Pan fails to disclose that the stochastic measure is based on a standard deviation computation as in the claim. Qi discloses a shot boundary detection method which relies upon standard deviation computations (Qi: column 1, lines 35-45) as an improvement in the use of histogram computations as in the primary reference (Pan: paragraph [0087], lines 1-8) in order to account for the correct interpretation of light flashes in a image sequence (Qi: column 1, lines 45-51) particularly in sporting events (Qi: column 1, lines 55-60) such as those sequences as in the primary reference (Pan: paragraph [0036], lines 10-17). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Qi teaching of using standard deviation calculations for shot/transition detection into the Pan method in order to have the Pan method correctly account for light flashes in its logo detection method for sporting events. The Pan method, now incorporating the use of Qi's standard deviation calculations, has all of the features of claim 1.

Regarding claim 2, the Pan method, now incorporating the use of Qi's standard deviation calculations, includes the steps of: (a) for each pixel in the logo area (Pan: paragraph [0042], lines 5-13: "logo shape") in a current frame (Pan: paragraph [0080], lines 1-4): (i) determining the difference between the value of the current pixel and that of a corresponding pixel in a reference frame (Pan: paragraph [0078], lines 1-5), (ii) subtracting a mean value (Pan: paragraph

[0065], lines 1-7) of given noise level (Pan: paragraph [0075], lines 1-12; paragraph [0076], lines 1-7) from the said difference and squaring the obtained value (Qi: column 11, lines 60-67; column 12, lines 1-3); and (iii)generating a sum of the squared differences with noise mean subtracted for each of a plurality of pixels within the logo area (Pan: paragraph [0042], lines 1-13); (b) generating an average of the sums, and determining the stochastic measure based on said average (Qi: column 12, lines 65-67; column 13, lines 1-4), as in the claim.

Regarding claims 3-4, the Pan method, now incorporating the use of Qi's standard deviation calculations, has the use of a standard deviation calculation (Qi: column 8, lines 25-60; column 13, lines 5-15), as in the claims.

Regarding claims 5-6, the Pan method, now incorporating the use of Qi's standard deviation calculations, includes a sub-image; the method further includes the steps of initially detecting the area including the sub-image, and generating a map including a pixel pattern corresponding to the current frame, wherein each pixel in the pattern indicates whether the corresponding pixel in the current frame is in the sub-image (Pan: paragraph [0042], lines 1-13), as in the claims.

Regarding claims 7-8, the Pan method, now incorporating the use of Qi's standard deviation calculations, has wherein the noise level is selected by determining a standard deviation of noise samples from the current signal (Qi: column 13, lines 5-15), wherein i is the index of a digital noise sample (Qi: column 12, lines 10-40), as in the claims.

Pan discloses a method of detecting fade of a logo in a sequence of frames comprising pixels that represent digital video images (Pan: figures 4-5), comprising the steps of: for each pixel in a logo area (Pan: paragraph [0042, lines –5-13: "logo shape") of a current frame (Pan:

paragraph [0036], lines 17-25): determining a difference between a value of a current pixel and that of a corresponding pixel in a reference frame (Pan: paragraph [0081], lines 1-5); subtracting a mean (Pan: paragraph [0065], lines 1-5) of a given noise (Pan: paragraph [0075], lines 1-11; paragraph [0076], lines 1-7) from the said difference and squaring the obtained value (Pan: paragraph [0076], lines 1-7); generating a sum of the squared differences with the noise mean subtracted for each of a plurality of pixels within the logo area [0078], lines 1-5), generating an average of the sums (Pan: paragraph [0067], lines 1-8), as in claim 9. However, Pan fails to disclose comparing said average to a given noise level represented by a standard deviation, such that if the difference between the average and the noise standard deviation is greater than the threshold value then fade is detected, as in the claim. Qi discloses a shot boundary detection method which relies upon standard deviation computations (Qi: column 1, lines 35-45) as an improvement in the use of histogram computations as in the primary reference (Pan: paragraph [0087], lines 1-8) in order to account for the correct interpretation of light flashes in a image sequence (Qi: column 1, lines 45-51) particularly in sporting events (Qi: column 1, lines 55-60) such as those sequences as in the primary reference (Pan: paragraph [0036], lines 10-17). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Qi teaching of using standard deviation calculations for shot/transition detection into the Pan method in order to have the Pan method correctly account for light flashes in its logo detection method for sporting events. The Pan method, now incorporating the use of Qi's standard deviation calculations, has all of the features of claim 9.

Regarding claims 10-11, the Pan method, now incorporating the use of Qi's standard deviation calculations, has the initial steps of: detecting the logo in the current frame, and generating a map including a pixel pattern corresponding to the current frame, wherein each pixel in the pattern indicates whether the corresponding pixel in the current frame is in the logo (Pan: paragraphs [0042] and [0052], all) as in the claims.

Regarding claims 12-13, the Pan method, now incorporating the use of Qi's standard deviation calculations, has wherein the noise level is determined a standard deviation of noise samples from the video images (Qi: column 13, lines 5-15), as in the claims.

Pan discloses a fade detection system for detecting fade in a logo in a sequence of frames comprising pixels that represent digital video images (Pan: figure 27), comprising: a detector for detecting the logo in one of the video frames (Pan: paragraph [0036], lines 17-25); a logo map generator generating a map including a pixel pattern corresponding to the video frame (Pan: paragraph [0077], lines 1-8), wherein each pixel in the pattern indicates whether the corresponding pixel in the video frame is in the logo (Pan: paragraph [0075], lines 1-8); a logo tracker that detects logo fade by: using the map to select pixels of the video frame that are in the logo to (Pan: paragraph [0071], lines 1-11) determine the difference between the value of the current pixel and that of a corresponding pixel in a reference frame (Pan: paragraph [0081], lines 1-5), subtracting a given noise (Pan: paragraph [0075], lines 1-15) mean (Pan: paragraph [0065], lines 1-5) from the said difference and squaring the obtained value (Pan: paragraph [0076], lines 1-7), and generating a sum of the squared differences with noise mean subtracted for each of a plurality of pixels within the logo area [0078], lines 1-5); generating an average of the sums (Pan: paragraph [0067], lines 1-8), and comparing said average with a given noise level (Pan: paragraph [0073], lines , such that if t-he a difference between the said average and the noise level is greater than the threshold value (Pan: paragraph [0075], lines 6-11) then a fade is detected (Pan: paragraph [0040], lines 1-6), as in claim 15. However, Pan fails to disclose that the noise level is determined by a standard deviation computation as in the claim. Qi discloses a shot boundary detection apparatus (Qi: figure 2) which relies upon standard deviation computation means (Qi: column 1, lines 35-45) as an improvement in the use of histogram computations as in the primary reference (Pan: paragraph [0087], lines 1-8) in order to account for the correct interpretation of light flashes in a image sequence (Qi: column 1, lines 45-51) particularly in sporting events (Qi: column 1, lines 55-60) such as those sequences as in the primary reference (Pan: paragraph [0036], lines 10-17). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Qi teaching of using standard deviation calculations for shot/transition detection into the Pan method in order to have the Pan method correctly account for light flashes in its logo detection method for sporting events. The Pan system, now incorporating the use of Qi's standard deviation calculations means, has all of the features of claim 15.

Regarding claim 16, the Pan fade detection system, now incorporating the use of Qi's standard deviation calculation module, has wherein the noise level is selected by determining a standard deviation of noise samples (Qi: column 13, lines 5-15) from pixels in the logo (Pan: paragraph [0042], lines 5-13), as in the claim.

Pan discloses a fade detection system for detecting fade in a logo in a sequence of frames comprising pixels that represent digital video images (Pan: figure 27), comprising: a detector for detecting the logo in one of the frames (Pan: paragraph [0036], lines 17-25); a logo tracker (Pan: paragraph [0071], lines 1-7) that calculates a stochastic measure σ_d of said area based on the differences in pixel values in at least two of said frames (Pan: paragraphs [0078]-[0082], all), and detects fade in said area by comparing the stochastic measure σ_d with a given noise level (Pan: paragraph [0036], lines 20-30; paragraph [0075], lines 1-11), such that if the difference between era and noise level is greater than a threshold value (Pan: paragraph [0076], lines 1-6) then fade is detected (Pan: paragraph [0040], lines 1-8), as in claim 17. However, Pan fails to disclose that the stochastic measure is based on a standard deviation computation as in the claim. Qi discloses a shot boundary detection apparatus (Qi: figure 2) which relies upon standard deviation computations (Qi: column 1, lines 35-45) as a detection means as an improvement in the use of histogram computation means of the primary reference (Pan: paragraph [0087], lines 1-8) in order to account for the correct interpretation of light flashes in a image sequence (Qi: column 1, lines 45-51) particularly in sporting events (Qi: column 1, lines 55-60) such as those sequences as in the primary reference (Pan: paragraph [0036], lines 10-17). Accordingly, given this teaching, it would have been obvious for one of ordinary skill in the art to incorporate the Qi teaching of using standard deviation calculations for shot/transition detection into the Pan fade detection system in order to correctly account for light flashes in its logo detection for sporting events. The Pan fade detection system, now incorporating the use of Qi's standard deviation calculation module, has all of the features of claim 17.

Regarding claim 18, the Pan fade detection system, now incorporating the use of Qi's standard deviation calculation module, has the tracker calculate the stochastic measurement by: (a) for each pixel in a logo area (Pan: paragraph [0042], lines 5-13) of a current frame (Pan: paragraph [0080], lines 1-4): (i) determining a difference between a value of the current pixel and that of a corresponding pixel in a reference frame (Pan: paragraph [0078], lines 1-5), (ii) subtracting a mean (Pan: paragraph [0065], lines 1-5) of the noise level (Pan: paragraph [0075], lines 1-11) from the said difference and squaring the obtained value (Qi: column 11, lines 60-67; column 12, lines 1-3); and (iii)generating a sum of the squared differences with noise mean subtracted for each of a plurality of pixels within the logo area (Pan: paragraph [0042], lines 1-13); (b) generating an average of the sums, and determining the stochastic measure based on said average (Qi: column 12, lines 65-67; column 13, lines 1-4), as in the claim.

Regarding claims 19-20, the Pan fade detection system, now incorporating the use of Qi's standard deviation calculation module, has the use of a standard deviation calculation (Qi: column 8, lines 25-60; column 13, lines 5-15), as in the claims.

Regarding claims 21-22, the Pan fade detection system, now incorporating the use of Qi's standard deviation calculation module, includes a logo map generator for generating a map including a pixel pattern corresponding to the current frame, wherein each pixel in the pattern indicates whether the corresponding pixel in the current frame is in the sub-image (Pan: paragraph [0042], lines 1-13), as in the claims.

Regarding claims 23-24, the Pan fade detection system, now incorporating the use of Qi's standard deviation calculation module, has the wherein the noise level is determined by a standard deviation of noise samples from the video signal (Qi: column 13, lines 5-15), wherein i is the index of a digital noise sample (Qi: column 12, lines 10-40), as in the claims.

Conclusion

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andy S. Rao whose telephone number is (571)-272-7337. The examiner can normally be reached on Monday-Friday 8 hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on (571)-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andy S. Rao
Primary Examiner
Art Unit 2621

[illegible]
PRIMARY EXAMINER

asr
July 30, 2007